Response to Comments
Total Maximum Daily Load for Organochlorine Pesticides and Polychlorinated Biphenyls in Calleguas Creek its Tributaries and Mugu Lagoon

June 22, 2005

1. Ventura County Watershed Protection District
2. USEPA
3. Heal the Bay
4. Ventura County Farm Bureau
5. Camarillo Sanitation District, City of Thousand Oaks, City of City Valley, Camrosa Sanitary District, and Ventura County Water Works District #1.
6. County Sanitation Districts of Los Angeles
7. Department of the Navy
8. Department of Transportation

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01	Ventura County Watershed Protection District	05/13/05	Watershed Stakeholder Management Watershed stakeholder-based effort continue to be used to address each water quality impairment and restore beneficial uses	Staff agree that the watershed stakeholder-process should continue to be used to address each water quality impairment and looks forward to working with stakeholders in implementing this TMDL. The TMDL Special Study to establish a baseline for siltation is to be conducted by key stakeholders such as the US Navy, Agricultural dischargers, and stormwater permittees. The Special Study will include a Science Advisory Panel to review the siltation workplan. In implementing this TMDL, staff recognize that dischargers may be implementing management measures and management practices to reduce sediment and Siltation loads through permit and waiver programs during the special studies. Further, since the effective date of the Consent Decree, the riparian portions of Calleguas Creek have

* For a complete version of comments, please refer to the attached comment letters

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				been listed as impaired due to sediment, and a TMDL may be initiated during the special Study of this TMDL. Staff's intent is to coordinate the requirements of this TMDL with other programs that reduce sedimentation and Siltation and the Special Study can consider sediment and silt load reductions through existing permit and the forthcoming conditional waiver for irrigated lands in recommending a numeric baseline and mass load reductions. Load and wasteload allocations become effective after the Regional Board revises the load and wasteload allocations based on the Special Study, nine years after the effective date of the TMDL.
			303(d) listing: 303(d) listing of Mugu Lagoon for siltation/sedimentation is based on data and resulting studies collected and produced over 10 years ago. Watershed conditions have been changed since the sediment study of 1995. There has been an increase in development, loss of agriculture and open space, and implementation of watershed best management practices and elements of the NPDES Stormwater Program. These changes throughout the Calleguas Creek Watershed would have altered the siltation/sedimentation loads to Mugu Lagoon.	Staff recognize that current conditions may have changed from conditions at the time of 303(d) listing. The Siltation TMDL includes wasteload and load allocations set as an annual mass reduction from a baseline value of sediment and silt conveyed into Mugu Lagoon. The TMDL includes a Special Study to document current conditions, set an appropriate numeric baseline from which the Siltation mass reductions are based, and revise the mass load reductions, if appropriate. The special studies will be overseen by a Science Advisory Panel. At the conclusion of the special study, the Regional Board will reconsider the TMDL to establish wasteload and load

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				allocations recommended by the Special Study. Load allocations, expressed as a mass reduction, are not based on the 1995 study alone, but on more than 20 years of work including the 2002 RMT Study. The TMDL includes a Special Study to provide data to establish a baseline of silt and sediment loading to Mugu Lagoon, and, if appropriate, revise the mass load reduction allocation of this TMDL. This baseline, combined with the mass siltation reduction, will establish a sustainable total maximum daily load to address the siltation impairment of Mugu Lagoon.
			Changes in Habitat The memorandum includes no discussion of the habitat assessment techniques used in the studies or how the studies differed from one another. Differences in the habitat assessment techniques used in the studies could have resulted in the different habitat inventories. There was no mention of air-photos as part of the 1987 Fish and Game study. The compatibility of assessment techniques used in the studies should be discussed in the technical memorandum.	An appendix is included listing numerous methods of habitat assessment which may be selected by the Science Advisory Panel to use for future comparisons. Staff agrees that the two studies may not have evaluated the same measures, but acreage is a straightforward measure of comparison and the difference in acreage in the two studies may identify a habitat change, which is worthy of additional assessment.
			Establishment of Annual Deposition Rate and Load Allocations Two of the three studies were based on sedimentation models and includes no discussion of the modeling accuracy. The District	Agree. The Science Advisory Panel may select sedimentation baselines by the most appropriate method, including modeling or measurement.

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			recommends further study to establish an accurate annual deposition value based on current data. Model calibration accuracy should also be documented as a component of the modeling results The Regional Board has stated that the cited load allocation of 5,200 Tons/Year will not be enforced until further TMDL studies have been completed. At that time the load allocation will be confirmed or modified to a final load allocation. TMDL language clarifying how the load allocation will be implemented and describing delayed enforcement until the load allocation has bee assessed should be included in the final TMDL. The TMDL load allocation of 5,200 Tons/Year conflicts with the Los Angeles Basin Plan Amendment siltation load allocation of 3000 Tons/Year. This discrepancy needs to be resolved by the Regional Board based on sound data and the finding of current siltation studies.	Agree. The total load and wasteload allocations for siltation are 5,200 tons per year reduction. Agree. Changes made in the Basin Plan Amendment.
			Source Analysis The District recommends that the Regional Board evaluate more recent data and information to determine source contribution of sediment to Mugu Lagoon. The change in land use from open space to urban will result in a deduction in sediment yield to Calleguas	Recent data were requested of stakeholders, including VCWPD. Staff utilized all available information in developing the siltation TMDL. As more data becomes available, staff and stakeholders will use these data to refine the wasteload and load allocations.

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			Creek and Mugu Lagoon. The technical memorandum should include more detailed discussion of the expected reduction in sediment yield based on the past 10 years of land use changes in the watershed transitioning from agriculture and open space to increased urbanization.	
			Stormwater/Construction Dischargers/401 Applicants Load Allocation The TMDL memorandum states stormwater, construction dischargers, and 401 applicants will receive a load allocation of 1% washload/silt reduction per year from the amount measured in the year the TMDL is adopted. How and where the annual load is calculated needs to be defined in the memorandum. The TMDL includes no discussion of how the 1% reduction was established as the load allocation.	Changes have been made to the staff report and the Basin Plan Amendment. Based on this and other comments below, the load allocation and wasteload allocations are 2,704 tons per year reduction and 2,496 tons per year reduction allocated to Agricultural Dischargers and MS4 permittess (and copermittees), respectively.
			Science Advisory Panel and Special Studies Guidelines for participants in the TMDL Science Advisory Panel need to be defined and included in the TMDL. The use of percent EPT to establish waste load allocations is not recommended. In addition to siltation, other environmental factors such as water chemistry can influence percent EPT. Sediment production and transport models used to establish TMDL load allocations must be reliable, requiring calibration. Calibration of	Agree, added to Implementation Plan describing special studies. The Science Advisory Panel shall consist of regional and/or national experts in estuarine habitat, water quality, hydrologists, and engineers to review the work of the Special Study for siltation. Staff did not select EPT for an assessment tool, although it is considered a satisfactory alternative measure used by EPA for a siltation TMDL. The Science Advisory Panel will select the

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			the sediment model should result in an accurate reflection of actual watershed conditions.	appropriate tools.
02	USEPA	06/09/05	U.S. EPA reviewed the Calleguas Creek toxicity, Calleguas Creek OC pesticides and PCBs and Mugu Lagoon siltation TMDLs. The proposed TMDLs meet all federal regulatory requirements and will be approvable when they are submitted to the U.S. EPA. We strongly urge the Regional Board to adopt the TMDLs at the July 7, 2005 Board meeting to meet the state adoption requirements under the consent decree (Heal the Bay V. Browner, C. 98-48 25 SBA, March 22, 1999) and to provide greater clarity of implementation requirement expectations for all concerned stakeholders.	Comment noted.
			The proposed TMDLs meet all federal regulatory requirements. In particular, the proposal to set 1 TUc (Toxicity Unit Chronic) as the target to explain unknown toxicity is in accordance with 40 CFR 130.2(i). The proposal to express the Calleguas Creek OC Pesticides and PCBs TMDL and allocations on a concentration basis is consistent with federal regulatory requirements. The proposal to express the Mugu Lagoon siltation TMDL for Calleguas Creek as an annual load reduction of siltation accretion in the lagoon is consistent with federal regulatory requirements. Furthermore, the implicit and 5% explicit margin of safety outlined for chlorpyrifos in the toxicity	Comment noted.

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			TMDL appropriately addresses the uncertainties related to the linkage analysis.	
			U.S. EPA finds that the proposed Calleguas Creek and Mugu Lagoon TMDLs have provided reasonable technical analysis using best available data, information and scientific tools. In addition, for all proposed TMDLs, multiple lines of evidence were evaluated and provided to lead appropriately to the linkages and allocations. In the case of the Mugu Lagoon siltation TMDL, EPA finds that the provision of a Science Advisory Panel to revise the siltation and habitat targets, if needed, is an appropriate component of the Implementation Plan.	Comment noted.
			U.S. EPA endorses the TMDL implementation plans, which identify reasonable pollutant reduction approaches to implement the applicable water quality objectives and provide for adaptive management opportunities to improve upon current and future management practices.	Comment noted.
			The Calleguas Creek TMDLs are great examples of collaboration between the state and stakeholders working together to develop sound TMDLs and appropriate implementation practices. We hope the Regional Board will promptly approve the Calleguas Creek Toxicity, Calleguas Creek OC Pesticides and PCBs, and the Mugu Lagoon	Comment noted.

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			siltation TMDLs.	
03	Heal the Bay	06/10/05	**The compliance deadlines for achieving the organochlorine pesticide load allocations are too long.** The RWQCB failed to provide any justification on why it should take 20 years for the achievement of WLAs and LAs for largely banned constituents. Heal the Bay strongly recommends that the OC and OP pesticide TMDLs have consistent compliance periods of 10 years for agricultural dischargers and two years for POTWs and MS4 co-permittees as provided in the draft resolution for the diazinon and chlorpyrifos TMDL. Both TMDLs are similar in that they regulate largely banned legacy pesticides, so they should have the same compliance deadlines. Waiting 20 years for "attenuation" of OC pesticides and PCBs (the half life for DDT and PCBs off the Palos Verdes shelf is well over 100 years) is akin to doing nothing and just waiting for storm flows to move the contaminated sediments out of the impaired receiving waters.	The focus of this implementation plan is the identification of actions that will help accelerate the process of removing OC pesticides and PCBs that use has been completely banned for many years without impacting other beneficial uses in the watershed. Restoring impaired beneficial uses will take many years due to the quantity of OC residues present in the watershed and the highly persistent nature of these constituents relative to Chlorpyrifos and diazinon.
			Point sources should not have as long to achieve load allocations as agricultural non-point sources – The OC pesticide/PCBs TMDL is completely inconsistent with the approach of the organophosphate pesticide/toxicity TMDL that had longer compliance deadlines for	Restoring impaired beneficial uses will take years due to the quantity of OC residues that are widely spread throughout the watershed, and the highly persistent nature of these constituents relative to Chlorpyrifos and diazinon. Although their use has been banned, small

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			non-point sources than for point sources and stormwater. Heal the Bay is supportive of an approach that allows previously unregulated sources of pollutants (agriculture) to take a longer time to comply than point sources with deadlines for achievement of load allocations. POTWs have been regulated for these pollutants for decades, and in fact, have very small loading contributions to the watershed. Stormwater from MS4s has been regulated for 15 years. The OC pesticide and PCBs TMDLs provided no rationale for allowing POTWs and MS4 co-permittees as much time to comply with load allocations as agricultural dischargers.	quantities may be imported into the watershed through imported foods and the use of dicofol which can contain up to 0.1% DDT, DDD, and DDE.
			♣ **Many interim load allocations are not protective of aquatic beneficial uses –** The approach to setting the interim allocations was not protective of aquatic beneficial uses. Some load allocations were based on the 99th percentile of data, while others used the 95th percentile of data. If data were not adequate, then the maximum detected concentration for each constituent or minimum levels for non-detects were used to set the load allocations. The rationale for this approach was provided, but it surely is not protective of beneficial uses. This approach provides absolutely no incentive to improve water quality until final load allocations are achieved. Also, this approach allows interim WLAs and LAs that are up to 32 times higher for chlorpyrifos for minor point sources, over 193 times higher for chlorpyrifos for agricultural sources, 156 times higher for 4,4-DDE from a POTW, 2,000 times higher for chlordane at a POTW, 214 times higher for PCBs in sediments, and 63 times higher for toxaphene in sediments. Clearly these levels are not	The interim wasteload allocations have been revised in light of this comment. The TMDL will utilize data base from NPDES and TMDL monitoring and revise the interim wasteload allocations every 5-years in accordance with the 95th and 99th percentile procedures currently used.

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			protective of aquatic life or human health. Heal the Bay strongly urges the RWQCB to stick with the 99th percentile approach and to eliminate the use of maximum detected concentrations as the interim load allocations. Dischargers should not be rewarded with weak interim load allocations just because they discharge large concentrations of impairing pollutants. If more data are needed to adequately calculate the 99th percentile value, then the incentive to dischargers to get the data would be a default interim load allocation of the minimum level. On a related issue, how far did the RWQCB go back to determine the interim load allocations? The answer to this question is especially critical if the maximum detected concentration was used to determine the load allocation. Data points older than three years should not be used for the default load allocation.	
			The OC pesticide and PCB numeric targets for water, fish tissue and sediment are reasonable and protective – Heal the Bay supports the approach used by the RWQCB to derive these numeric targets because the approach is protective of aquatic life and human health. The use of CTR values for receiving waters, threshold tissue residue levels for fish tissue targets, and ERLs and TELs for sediment contaminant targets is reasonable, protective, and enforceable. As such, the approach is preferable to other potential alternatives for setting load allocations and targets for toxic constituents.	Comment noted
			The implementation plan for the OC pesticides and PCBs does not adequately address contaminated sediment hotspots. The implementation plan needs to include language that will insure that	The tentative TMDL has been revised so that the workplan for high concentration areas addresses triggers for contaminated hot spot removal to be approved by the Executive Officer.

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			OC pesticide and PCB contaminated sediment hotspots within the watershed will be removed and disposed of in an environmentally sound manner. Although the current TMDL includes a basic description of a water and sediment quality monitoring program, there is no trigger for sediment hot spot removal in the event that high levels of OC pesticides and PCBs are found. The data provided demonstrate that some reaches have much higher levels of OC pesticides and PCBs than others. Contaminated sediment hot spots may be the cause of these higher concentrations. On a related point, the economic analysis does not include any funds for removal actions. Contaminated sediment removal actions are a critical implementation component of any TMDL on legacy pollutants.	
			Although the siltation TMDL is critical to preventing further habitat loss at Mugu Lagoon and to reducing loads of impairing PCBs and OP and OC pesticides, the load allocation approach utilized was not thorough or protective of aquatic life in the watershed…. Although Heal the Bay supports the approach of load allocations tied	Staff agrees that the Siltation TMDL provides additional benefit of being an effective implementation measure for OP and OC pesticide TMDL in that it would identify any deleterious impacts to habitat from pesticide attached to sediment which were not sufficiently mitigated by the OP and OC pesticide TMDLs. Additional studies to be completed in the Siltation TMDL will better quantify habitat impacts of the implementation plans for the TMDL. The proposed reduction was for silt because the listing was for

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			to wetland habitat preservation, we do not agree with the approach used to determine the silt reduction load allocation. The document fails to provide any rationale for the use of silt in the load allocation. The term siltation of the wetland doesn't literally mean that the wetland is being lost to silt. The term means that the wetland is being filled in with sediment. Since sand particles settle out first at the mouth of a creek because of mass, there is no doubt that much of Mugu Lagoon is being silted in by sand. If this TMDL is going to reverse the loss of wetland habitat in the lagoon as required, the load allocations must be based on total sediment load reductions, not just silt load reductions. The RWQCB provided an extensive explanation of the derivation of the siltation reduction load allocation. The basis of the 5200 tons/year reduction was largely based on average siltation rates within the lagoon. However, the analysis did not include a fact based explanation of why RWQCB staff believes that achievement of the load reduction will result in no net loss of wetland habitat. Please explain why the 5200 tons/year reduction of silt will be protective of wetland habitat and more protective than other potential load reduction targets.	siltation. Staff agrees that habitat may be lost through sand infilling of the lagoon; however the RMA (2002) study (see reference in Technical Memorandum showed that silt deposition was widespread throughout the arms of the lagoon, with sand deposition only in the main channel. Staff concluded that silt had the greater potential to impact existing habitat. A habitat assessment will determine where the beneficial use is being impacted and determine what sediment changes may support habitat. The existing literature suggests that the current conditions may be characterized by the annual deposition of 5200 tons of silt and increasing upland habitat acreage. Mugu Lagoon is a dynamic system with large amounts of sediment moving in an out of the lagoon, and the sediment deposited is a measure of the oversupply into the lagoon. If studies confirm that maintaining the existing lagoon geometry and maintaining constant sediment flux will be stable in the long term then removing this amount of annually added silt should allow sediment movement while preventing the burial of wetlands and nearshore

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			Finally, the TMDL contains no requirements to assess the impacts of the load reductions on the macroinvertebrate community structure in the Lagoon or in the creek upstream of the lagoon. Siltation and sedimentation are known to cause significant ecological effects. Reduction of sediment loads to the creek and lagoon should result in improved benthic community structure and it is imperative that the TMDL includes a requirement to assess macroinvertebrate community structure over time.	habitat. Staff concurs that siltation reductions may have an impact on the macroinvertebrate community. The Science Advisory Panel is charged with identifying measures to assess habitat health and may select this measure.
			The Mugu Lagoon siltation TMDL must contain waste load allocations	Staff agrees and the staff report and Basin Plan Amendment has been revised to include wasteload allocations.
			The Mugu Lagoon siltation TMDL must be coordinated and integrated with the Calleguas Creek sedimentation TMDL	Comment noted
			Miscellaneous comments – The economic analysis provided in the TMDL should include a temporal component. In other words, the cost of compliance may appear expensive in one lump sum, but the cost becomes very reasonable when spread over the time frame to achieve compliance.	Comment noted
04	Ventura County Farm	06/10/05	Numeric targets for siltation and maintenance of habitat in Mugu Lagoon: The Siltation Technical Report clearly identifies that there	The TMDL requires the establishment of numeric allocations. In this case, their implementation is deferred until additional technical

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	Bureau		are presently many more unanswered questions than answered questions, regarding issues of current, historical, and acceptable levels of sedimentation in the CCW and Mugu Lagoon. Consequently, it is not appropriate to include such targets at this time. Even more importantly, it seems inappropriate that only agriculture has been singled out for a siltation load allocation. There are many other types of land use that can contribute to siltation in Mugu Lagoon and it is not reasonable to place a load allocation on only one potential contributor. This is especially problematic when the load analysis is still subject to question and discussion. Attainment of Numeric Targets Prior to WLAs/LAs: The implementation schedule contains crucial language regarding what happens if targets are achieved before actually attaining waste load and load allocations. Considering the uncertainties surrounding legacy pesticides and the real possibility that this may in fact occur, we recommend that this language regarding the need to revisit the TMDL be included into the body of the Basin Plan and not just the implementation schedule. In the Basin Plan, the language should accompany the provisions that discuss load allocations and wasteload allocations.	information can be acquired in acknowledgement of the scope of the existing studies and the necessity to evaluate current conditions Staff agrees and the staff report and Basin Plan Amendment have been revised. The implementation schedule is part of the Basin Plan Amendment, and can be used as the independent basis for re-evaluating the WLAs/LAs. Staff does not agree that it needs to be added to the WLA/LA section of the BPA.

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			Concern Over Future Sediment Control Measures: The implementation plan for the Tentative OCs BPA calls for BMPs to reduce inputs of sediments contaminated with OC pesticides and PCBs to surface waters. The agricultural community is concerned that a separate siltation TMDL, scheduled for completion in the future, may also require measures to reduce sediment inputs. It is well known that once measures are implemented to reduce sediments in compliance with the Tentative OCs BPA that there will be little the agricultural community can do to reduce additional sediments for compliance with a future sediment TMDL. Consequently, it is imperative that any sediment reduction measures implemented for the Tentative OCs BPA be recognized and accounted for in a future sediment TMDL. In addition, any sediment reduction measures imposed on agriculture for either TMDL must be practical and feasible. The TMDLs can not overlook the fact that erosion is a natural process and that agricultural activities occur in conjunction with natural processes. Sediment guidelines from NOAA are not appropriate TMDL Targets. The use of ERLs and TELs as numeric targets is a misapplication of	Staff agrees that the burden to reduce sedimentation does not lie solely with agriculture. The implementation plan of the TMDL has been revised to include wasteloads for stormwater permittees. Regional Board staff find that the NOAA SQuiRT values represent the best available science regarding toxicity and sediment quality. Board staff also find that the TEL and ERL values are protective of aquatic habitat beneficial uses. The "disclaimer" does not invalidate Regional Board staff findings nor preclude its use to define numeric targets for TMDLs by the Regional Board.

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			the sediment guidelines, which are presented by the National Oceanic and Atmospheric Administration (NOAA) as Screening Quick Reference Tables (SQuiRTs) with the following disclaimer: *"The SQuiRT cards were developed for internal use by the Coastal Protection & Restoration Division (CPR) of NOAA. The CPR Division identifies potential impacts to coastal resource and habitats likely to be affected by hazardous waste sites. To initially identify substances which may threaten resources of concern to NOAA, environmental concentrations are compared to these screening levels. <u>These Tables are intended for preliminary screening purposes only: they do not represent official NOAA policy and do no constitute criteria or clean-up levels. NOAA does not endorse their use for any other purposes.</u>"* Additionally, the method used to allocate loads in the OCs Technical Report directly links sediment quality to observed impacts in the stream system (i.e. fish tissue concentrations and water column toxicity). Special studies included in the implementation plan are designed to address the assumptions used in making those linkages. Consequently, the use of the sediment targets is not necessary to ensure protection of beneficial uses in the watershed. Specific Siltation Technical Report Comments	The Technical Report for the OC and OP TMDLs focus on impact in the watershed, but do not specifically address impairments in Mugu Lagoon nor are they crafted to ensure that those beneficial use impairments in the lagoon will be removed. As a result, additional studies are necessary. Additional sediment targets are required by that existing impairment.

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			Basic for listing: The Mugu Lagoon was listed as impaired on the state's 303(d) list in 1996. The LARWQCB 1996 Water Quality Assessment and Documentation (WQAD) provided the water quality information to support the 1996 listing. The Siltation Technical Report cites two reports as the basis for the siltation listing in Mugu Lagoon. The reports cited include the 1995 Calleguas Creek Watershed Erosion and Sediment Control Plan for Mugu Lagoon and the 1993-1997 State Water Resources Control Board Bay Protection and Toxic Cleanup Program (BPTCP) report. The 1995 Calleguas Creek Watershed Erosion and Sediment Control Plan for Mugu Lagoon discusses the potential impairments associated with excessive siltation and appears to be an appropriate cite for the 1996 listing. However, the BPTCP report does not make a direct link between siltation and observed impairments. Additionally, the BPTCP report was not published until 1998 and there is no reference to this report as a basis for the listing outlined in the WQAD. Therefore, it is unlikely that the BPTCP report was used as a basis for the listing in 1996 since the data were probably not available for consideration for the 1996 303(d) list nor are these data referenced in the 1996 WQAD. By stating this report is a basis for listing implies that all of the	Regional Board staff contributed to the BPTCP report and were familiar with data that were available during the preparation of the 303(d) list. See additional response to comments bellow on the BPTCP report documenting is appropriate listing in support of this impairment. Regional Board staff agree that the BPTCP report does not link the siltation to benthic impacts in keeping with its objective to identify impacts, not sources. However, it does demonstrate that the extent of the habitat beneficial use impairment was greater in Mugu Lagoon than in the other bays sampled. Table 2 distinguishes sediment entering the lagoon from that being deposited. Rates of sediment deposition are difficult to measure, but several are included in the work described. The Special Study and

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			impairments identified in the report are linked to siltation. This is not an appropriate conclusion and the report should be removed as a basis for the listing. Sediment delivery versus sediment deposition: The Siltation Technical Report does not clearly distinguish between sediment delivery to the lagoon and sediment deposition in the lagoon. Reductions of sediment deposition would be hard to quantify and if equated to the reductions required by the TMDL would likely not be achievable. Clarification in the Siltation Technical Report should be provided throughout the document. Numeric Targets: The siltation target in the Tentative OCs BPA does not match the target presented in the Siltation Technical Report. The Siltation Technical Report requires higher reductions. Regardless of the actual target, it is unclear if the sediment reduction target chosen is appropriate given the reduction is based on sediment deposition not sediment transport. The studies cited provide a range of two orders of magnitude with regard to sediment deposition in the lagoon. With regard to the habitat target, there is no discussion on the comparability or compatibility of the two studies cited and no clear reasoning given	Science Advisory Panel will address the distinction between sediment and siltation. The OC and PCBs load and wasteload allocations based on reductions in concentration of impairing constituents in sediment, not in sedimentation. The Siltation load and wasteload allocations are based on reductions in sedimentation. These allocations work together to reduce loadings of OC Pesticides, PCBs and siltation. The proposed reduction is based on information quantifying sediment deposition. Information on sediment transport was provided to demonstrate the dynamic nature of the system where most of the sediment entering the lagoon is not deposited. Calls for large amounts of sediment removal based on upper watershed sediment volumes which are in transit are not supported by the small evidence of deposition. On the other hand, relatively recent evidence that most sediment leaves the lagoon does not indicate that all sediment leaves or that aquatic habitat is not being lost to sedimentation. Multiple methodologies exist for describing habitat. An appendix to

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			to support either of the two studies as a basis for the target. Additionally, the habitat target is vague and may cause requirements to reduce sediment unrelated to anything but a change in the characteristics of the lagoon over time, not habitat value. The proposed targets for habitat and sediment reduction lack supporting evidence that indicates these targets are protective of beneficial uses. Given the lack of evidence, it seems inappropriate to set numeric targets at this time. The implementation plan proposes the initiation of significant studies to determine appropriate targets. The selection of numeric targets should be deferred until these studies are completed. Allocations: Both the sediment allocation numbers and the parties to which they are applied vary between the Tentative OCs BPA and the Siltation Technical Report. The Siltation Technical Report requires higher reductions. Additionally, stormwater and construction permit holders are given siltation allocations in the Siltation Technical Report, but not in the Tentative OCs BPA. The source assessment points to orchards as one of the top five contributors of sediment, but this is less than half of contributions from streambed erosion. It seems unreasonable to only apply reduction requirements to	the Mugu Lagoon Siltation TMDL provides lists of existing habitat assessment methodology. The Science Advisory Panel will select the methods for measurement. Staff agrees that additional habitat characterization is necessary. Staff cites referenced studies showing habitat impact. The listing requires a TMDL with a numeric allocation. The OC and PCBs load and wasteload allocations based on reductions in concentration of impairing constituents in sediment, not in sedimentation. The Siltation load and wasteload allocations are based on reductions in sedimentation. These allocations work together to reduce loadings of OC Pesticides, PCBs and siltation. See discussion above about clarifying the responsibility for sedimentation changes. New language has been added to the

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			agriculture. The burden of addressing siltation should be distributed to all parties that may increase sedimentation, which includes stormwater and construction permit holders. Reference to sediment reduction requirements: Table 7 of the Siltation Technical Report has a table stating the OCs Technical Report requires sediment reductions between 96 and 98 percent in the various subwatersheds. This is factually incorrect in that the OCs Technical Report will require reductions in concentrations of pesticides on sediments not reductions in sediment loadings. This table could lead to an interpretation that the Tentative OCs BPA require complete sediment control. The discussion of sediment reduction requirements in the Siltation Technical Report should be removed from this table. Special Studies: The continuation of the special studies in Year 2-8 requires a workplan to "include sufficient detail, …, such that the Regional Board may use the findings to evaluate the need for a TMDL based on the listings in Analytical Unit #8 for pesticides in the vicinity of the Rio De Santa Clara and Oxnard Drain #3." Additionally the study could be required to investigate surface water	Technical Report clarifying the necessity for all parties contributing sediment to participate in any remedy. The Technical Report has been revised to include a description and the basis for listing the Rio de Santa Clara and Oxnard Drain #3. Staff agree the allocations and implementation actions addressing historic pesticide and toxicity listings set forth in the OC and PCBs BPA and Toxicity TMDL BPA implementation plans provide appropriate means to address these constituents. Therefore, the Technical Memorandum addressing these agricultural drains is not necessary and will be removed from the Board package.

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			chemistry. Since this is the implementation plan for a siltation TMDL to address impairments related to excess sediment in the lagoon, the agricultural community fails to see the need assess water chemistry and pesticide related impairments in this TMDL. Furthermore, the allocations and implementation actions addressing historic pesticide and toxicity listings set forth in the Tentative OCs BPA and Tentative Toxicity BPA implementation plans provide appropriate means to address these constituents. Therefore, such provisions are not necessary or appropriate in a siltation TMDL. We recommend that the implementation plan be amended to remove provisions that are not directly associated to siltation impairment. Overall: There appears to be a number of factual inaccuracies in the Siltation Technical Report. In addition, the Siltation Technical Report provides little information on the studies used to support the source assessment, numeric targets, and allocations. This additional information regarding the studies approaches or models is necessary to determine there validity for use in this context. Finally, the Siltation Technical Report contains an inadequate explanation regarding the choices and assumptions made in the document. Given the lack of sound information available for this TMDL, numeric	The complete causes of the documented habitat impacts is not fully understood. The Science Advisory Panel will ensure that toxicity or pesticide effects and not sediment effects alone are responsible. The exclusion of chemical or ecosystem assessment could result in an inaccurate conclusion that sediment alone caused habitat loss. Staff disagrees that numeric allocations should be set aside. In addition to the studies documenting siltation and sediment loads to Mugu Lagoon, the Scientific Peer Reviewer concluded that Mugu Lagoon is a likely sink for historic pesticides and PCBs. Given the biological significance of Mugu Lagoon and the Consent Decree mandates, these allocations should not be set aside. There are no specific inaccuracies in the comment to which Staff can respond.

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			targets and allocations should be set aside until the appropriate special studies can be completed.	Staff agrees that additional studies are necessary. However, the scope of the existing studies, which are thoroughly described in this report, is sufficient to set a regulatory path forward if additional studies are not completed to add additional technical clarity.
05	-Camarillo -Camrosa -SimiValley -Thousand Oaks	06/10/05	Remove Numeric Targets and Allocations for Siltation (Numeric Targets, Page 4) -- Remove siltation **target** and replace it with the following statement: "This TMDL does not include numeric targets for siltation or maintenance of existing habitat in Mugu Lagoon, because current information is insufficient for development of technically supportable targets. The inability to develop targets is not considered problematic, since implementation actions required to achieve numeric targets for OC Pesticides and PCBs are believed to be sufficient to achieve the narrative objectives for siltation in Mugu Lagoon. If monitoring and special studies indicate an impairment due to siltation exists after implementation measures have been put in place, numeric targets for siltation will be developed at that time." (Siltation LAs, Page 9) -- Remove Siltation **LAs** for Agricultural	The proposal to remove the numeric targets and allocations is flawed. The proposed text states "implementation actions required to achieve numeric targets for OC pesticides and PCBs re believed to be sufficient to achieve the narrative objective for siltation in Mugu Lagoon"… is factually incorrect and misleading. These TMDLs contain no evaluation of the narrative objective for siltation, no assessment of a siltation problem, nor quantification of any siltation change as a result of the concentration allocations in the TMDL. Any siltation changes produced by the TMDLs as written is incidental, not intentional, and not quantified so as to resulting in any specific change in the downstream lagoon which is listed for sedimentation/siltation. The proposal to remove the siltation target for agriculture may be appropriate after a period of study during which the presence and

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			dischargers. Once the numeric targets for siltation is removed, the LAs for agricultural discharges should also be removed.	extent of a siltation problem in the lagoon is quantified. Should a study period containing multiple drought and wet periods demonstrate that sediment chemistry is the problem, the requirement for a sediment mass change can be removed. Should the study period demonstrate the silt or sand mass is impacting the habitat, then a load allocation should be applied to agriculture, MS-4 permittees, construction and industrial permittees that release sediment. While the sum of the wasteload and load allocation mass reductions is set at 5200 tons per year, this mass reduction will be used to develop load and waste load allocations if the Special Study confirms impairments due to sediment loading. In response to justification comments: The Siltation Technical Report does include adequate technical support for the recommendations (1) by surveying extensive existing and site-specific literature, (2) by relying on the State-funded Bay Protection and Toxic Cleanup study which was completed in 1987, provided thorough documentation of benthic habitat problems, and recommended that remedies be sought by stakeholders, and (3) by requesting current documentation or studies of stakeholders. While the RWQCB-LA proposed to complete the Mugu Lagoon siltation TMDL in a setting where upstream and adjacent work was completed by the CCWMP, the CCWMP could have selected to complete the work using a different approach and chose not to address the topic. Finally, because different stakeholders in the Calleguas Creek collect different information concerning sedimentation, the TMDL provides additional studies and a forum to reach agreement on the existing conditions. Multiple attempts to reach technical agreement have already been attempted. In addition to the California Bay Protection and Toxic Cleanup study (1997), studies seeking to finding solutions

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				for questions of sedimentation have been completed by the National Resource Conservation District (1995), Ventura Resource Conservation District/RWQCB 2000, 2002, and 2004, The Ventura County watershed Protection District in 1998 and 2005 and Army Corp of Engineers/Navy 2005. The technical questions raised during stakeholder review of the Mugu Lagoon Siltation TMDL have been addressed. Additional technical inaccuracies are not identified in the comment, other than those responded to. The Siltation Technical Report evaluates numerous studies to characterize this process completed over that last 20 years, describes the areas of agreement, and seeks further work to confirm the targets proposed. This is in contrast to recommendations to eliminate the TMDL in favor of that of the OC and OP pesticide TMDL which will not reduce sediment, will not evaluate the habitat in the lagoon for such a substantial period of time that there is a risk of complete elimination of critical habitat in the lagoon.
			Justification for removal of siltation targets and allocations: The Siltation Technical Report does not provide adequate technical support for the selection of a numeric target or allocations for siltation nor for maintenance of habitat. As discussed in the analysis of the Siltation Technical Report in a later section, a number of technical inaccuracies exist in the interpretation of the studies, the connection between sediment deposition and sediment transport, and the connection between habitat and siltation. These collectively result in unsupportable TMDL targets for siltation and habitat maintenance. The supporting information does not demonstrate how the targets or	Previous work demonstrates the relationship between deposition and transport and by quoting from that work the Mugu Lagoon Siltation TMDL characterizes these relationships without quantifying the relationship. The site where siltation deposition volumes were estimated for the TMDL was the Mugu Lagoon. Estimates were based on the most recent study in the area by RMA for the Army Corp of Engineers completed in 2002. Other studies, such as the US Department of Agriculture study of 1995 study provide information on the relationship between sediment transport in other parts of the watershed and the amount deposited.

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			allocations would result in the protection of beneficial uses or address the potential impairments in the lagoon. Additionally, the lack of a baseline in the target results in concerns about the impacts of the target and allocations on the dischargers. Without this information, evaluation of the target is not feasible and it is not possible to determine compliance with the allocations.	The impairments in the lagoon will be addressed by the Mugu Lagoon Siltation TMDL, but not by the OC and OP pesticide TMDL because it requires the quantification of the impacts of the siltation listing with some measures of habitat to be determined by the Science Advisory Panel. Further, if a relationship is established, then specific load and waste load allocations for silt would be generated. The OC and OP pesticide TMDLs do not require any sediment reductions and do not require assessment of the most sensitive measures of OC and OP pesticide impacts on the most sensitive beneficial uses and the most delicate downstream habitats in Mugu Lagoon. The statement that the Mugu Lagoon Siltation TMDL does include baselines to allow determination of the impact of the proposed reduction on dischargers is factually incorrect. The baselines were provided twice, once for sediment deposited in the Lagoon where the number is used for the proposed reduction. Further, baseline values for all subwatersheds were developed based on the US Department of Agriculture study (1995) and are included in Table 8. Extensive documentation exists as to the relationship between habitat in tidal lagoons and wetlands and the silt provided by episodic flooding which provides food for the benthic organisms which live in those environs. Some of these references are included with the TMDL itself and in the discussions in the California Bay Protection and Toxic Cleanup study (1997). Because of current conditions may not match conditions at the time of listing, the Mugu Lagoon Siltation TMDL establishes a Science

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				Advisory Committee to determine the current status of the habitat, measures of quantifying that habitat, and the relationship between habitat quality and quantity and siltation during the first 8 years of the implementation plan. The statement that the Mugu Lagoon Siltation TMDL does not estimate the impact of streambank erosion is incorrect. The relative proportions of sediment sources are listed in Table 5. Streambank remedies would not necessarily lie with agriculture and the assertion that there would be an unfair burden on this stakeholder is also incorrect given the refinements in load and waste load allocations in the new draft. Further agricultural reductions of sedimentation through the Conditional waiver for Irrigated Lands will not begin construction for at least 3 years. Thus, the premature removal of sediment and lagoon impact are not likely. The Mugu Lagoon Siltation Technical Memorandum was submitted for review by the independent peer review selected by the University of California. The Steering Committee did not elect to submit it for review by the Technical Advisory Committee. The development of siltation targets after 5 years and before 8 years is

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				not feasible. The proposed study alterative will not be successful because it reduces 8 years of siltation and habitat observation into 2 years. Since the Department of Water Resources describes typical drought and wet cycles as occurring within a decade, the proposal will provide a distorted measure of siltation based on a limited range of weather conditions. Verbal comments received from the Ventura County Watershed protection District and the Navy both state that two years is an insufficient time of study to establish an appropriate wasteload and load allocations. Deferring the siltation studies for 8 years will prevent the collection of crucial information about what siltation remedy, if any, is required and may threaten the ultimate success of the OC and OP pesticide TMDLs. Specifically, those TMDLs contain allocations to reduce the amount of chemicals and if the predominant cause of habitat loss in the lagoon is sedimentation, the TMDLs may not result in improvement in the ecosystem of the lagoon despite the investment of significant funds. Instead, more habitat changes could result without identification of a specific remedy and with the appearance that the OC and OP TMDL has not protected the watershed. The statement that sediment reductions are already included in the OC and OP pesticide TMDL is misleading and factually incorrect, While

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				the commenter on page 3 say "*Implementition actions that will begin immediately to address the Toxicity, Pesticide and PCBS* ***TMDLs will result in decreased sediment delivery*** *to the stream and reduce impairments in the lagoon caused by sedimentation," they contradict this statement on page 9 with " Table 7 of the Siltation Technical Report claims that the OC Pesticide and PCBs technical report calls for sediment reductions between 96 and 98 percent in the various subwatersheds. This is factually incorrect in that the OC Pesticide Technical Report analysis will require reductions in concentrations of pesticides* ***not reductions in sediment loading****."* The document does not require any reductions in sediment loading and will not provide any change in the sedimentation in Mugu Lagoon.
			Further, the basis for listings cited in the Siltation Technical Report do not provide sufficient information to demonstrate that siltation is causing impairment in the lagoon. The lack of information about the impacts of siltation in Mugu Lagoon could even result in unintended negative impacts on the lagoon from the suggested numeric targets. There is some information available to suggest that siltation is not causing impairments in the lagoon and that the lagoon may instead be silt starved. Additionally, as discussed in the Siltation Technical Report, stream bank erosion is the most significant source of transported sediment. Thus, reducing sediment delivery to the stream	

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			from agricultural areas might have little or no positive effect upon sedimentation in the lagoon (especially if stream bank erosion were to increase as a result of decreased sediment supply from land). Until these impacts can properly assessed, a target and associated allocations cannot be developed.	The algae special studies were selected because almost no local literature existed as to the linkage between numeric targets for nitrogen and impairment by algae. This is not the case with the sediment. Further, the algae study was proposed to coincide with ongoing national work on nutrients. This also is not the case with the sediment targets.
			Lack of proper review: Development of the siltation targets and allocations was not subjected to the same review process as the targets and allocations for OC Pesticides and PCBs. The entire OC Pesticides and PCBs Technical Report was thoroughly reviewed by a committee of experts from various academic and government organizations. The Siltation Technical Report was not subject to any such review. Additionally, the Siltation Technical Report did not undergo the same peer review process as the OC Pesticides and PCBs	

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			Technical Report, as is required by California Health & Safety Code Section 57004. This lack of proper review is an additional reason to support the suggested removal of targets and allocations for siltation, which were developed within the Siltation Technical Report. In lieu of declaring targets and allocations for siltation immediately, the following course of action is suggested: Modify Special Study #2 to evaluate whether or not an impairment exists due to siltation after implementation actions required for the OC Pesticides and PCBs TMDLs have been put in place; If Special Study #2 indicates impairment due to siltation, develop numeric targets and allocations for siltation; If Special Study #2 indicates no impairment due to siltation, do not develop numeric targets or allocations for siltation; Modify Special Study #4 to develop numeric targets and allocations for siltation, if Special Study #2 suggests an impairment due to siltation exists in spite of implementation actions put in place for the OC Pesticides and PCBs TMDLs. Since compliance with the target and allocations is not required for 8 years in the current version of the OC Pesticides BPA, the decision	

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			about whether or not to develop a siltation target can be deferred until Special Study #2 is completed (after 5 years) without altering the overall schedule. Since Special Studies #1 and #2 will both generate information critical for development of siltation targets (should they prove necessary), development of siltation targets after 5 years and before 8 years is feasible. Implementation actions that will begin immediately to address the Toxicity and OC Pesticides and PCBs TMDLs will result in decreased sediment delivery to the stream and will reduce impairments in the lagoon caused by sedimentation. Given that those implementation actions will be taken regardless of the presence of a target or allocations, deferring target selection will not result in any additional impairment to the lagoon.	

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			Precedent: There is precedent for this approach in the Nutrient TMDLs developed by the Los Angeles Regional Water Quality Control Board. Specific numeric targets were not developed for algae until special studies are done to determine if it is necessary. The requested change to the language in the Tentative OC Pesticides BPA is derived from the following language in the Calleguas Creek Nutrient TMDL that was used to address the issue of an algae numeric target: *"Numeric targets to address narrative objectives required to protect warm freshwater and wildlife habitat are believed to be sufficient to implement the narrative objectives and may be revised based on the results of monitoring and studies conducted pursuant to the implementation plan."*	
			Specific Edits for Elements Table 7-17.1 Page 3, last sentence before Sediment Targets table, and change the text shown in bold to "Regional Board **will** revise the TMDL to include those standards." Page 6, Table 1. a) Change title of table to: "Interim Monthly	Staff can recommend, but not direct the Regional Board to revise a TMDL.

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			Effluent WLAs (ng/L)" Last line on Page 6, add text shown below in bold: "The final WLAs will be included in NPDES permits **in accordance with the schedule in the implementation plan.**"	
			Specific Edits for Implementation Schedule Table 7-17.2 Insert the following new item in Table 7-17.2: Implementation Action: Place final WLAs in NPDES permits Responsible Party: Regional Board Date: Fifteen years after the effective date Insert the following new item in Table 7-17.2: Implementation Action: Special Study # 7 (Optional). Submit a report presenting the results of any special studies or other information that could result in refinement of the TMDL targets, WLAs and LAs, and implementation schedule. Responsible Party: POTWs, MS4 Copermittees, and Agricultural Dischargers Date: Until twenty years after the effective date Change the following dates in Table 7-17.2:	The Regional Board retains the authority to consider additional information at any time.

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			Item 5. 6 months after approval of the workplan by the Executive Officer Item 7. 3 years after approval of Task 6 workplan by the Executive Officer	
			Revise Item 10, Special Study #2, as follows: 'Submit a workplan to determine whether impairment results from siltation in Mugu Lagoon, after implementation actions required for the OC Pesticides and PCBs TMDLs have been put in place."	As described above, the proposal to delay the commencement of siltation and habitat studies until after the implementation actions for OC pesticides and PCBs TMDL does not ensure the attainment of water quality standards nor does it protect the habitat of Mugu Lagoon.
			Revise Item 15, Special Study #4, as follows: 'If Special Study #2 finds impairment due to siltation remains after implementation actions for the OC Pesticides and PCBs have been put in place, develop numeric targets and allocations for siltation and maintenance of habitat to protect the beneficial uses of Mugu Lagoon. Convene a Science Advisory Panel, to be approved by the Executive Officer, to provide direction and assistance for the study and review and comment on study products." Revise Footnote Number 1, Page 14. At the end of the sentence after	As described above, there is no justification to delay studies into the habitat conditions in Mugu lagoon. Further, the change that the Science Advisory Panel **oversee and not direct** the special study inserts an un-necessary distance between those technical experts and the study process. Staff has modified the BPA to provide greater clarity in representing that implementation plan. The special studies in the OC and OP Pesticide TMDL, even with the further revisions proposed, do not address sufficiently siltation and habitat issues in Mugu lagoon.

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			program add the following language: "to prevent duplicative efforts." Revise Footnote Number 3, Page 14: Special studies included in the Implementation Plan are based on the OC Pesticides and PCBs Technical Documents with some modifications to address siltation.	
			Comments on Siltation Technical Report: The Siltation Technical Report does not provide sufficient technical support for development of the targets and allocations presented in the Tentative OC Pesticides BPA. Additionally, there are significant deviations between the information presented in the Siltation Technical Report and the information included in the Tentative OC Pesticides BPA. In this section, we are providing comments on the information contained in the Siltation Technical Report as support for our request that the targets and allocations be removed from the Tentative OC Pesticides BPA until the appropriate special studies are completed.	The challenges in protecting Mugu Lagoon is not simply acquiring data as this comment would suggest, but rather in reaching stakeholder agreement on the nature of the problem and its remedy. There is extensive technical evidence quantifying the sediment mass entering the lagoon and some evidence describing the amount deposited. There are at least two studies describing the habitat in the lagoon which may be consistent with water quality and/or sedimentation problems. The Navy has committed to regular assessment of the habitat and is currently conducting studies to better characterize the sedimentation. Instead, the Mugu Lagoon Siltation TMDL requires a Science Advisory Panel to work with the stakeholders to review the existing work and conduct additional work as necessary to describe measures of habitat quality and quantity which can be assessed, and to characterize the remedy.

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			General concerns with the Siltation Technical Report are as follows: There are significant inconsistencies between the information presented in the Tentative OC Pesticides BPA and the Siltation Technical Report. Consequently, the Siltation Technical Report does not provide support for the BPA. There are factual inaccuracies in the Siltation Technical Report. The studies used to support the source assessment, numeric targets, and allocations are presented with no context on how the studies were developed, the methods used to conduct the studies, and the relevance of each study to the other studies. There is no discussion of the approach or models used in the studies nor the accuracy or verification of the approach. Little to no explanation is given for the choices and assumptions made in the document.	The deviations between the Mugu lagoon Siltation TMDL and the OC OP Pesticide TMDL have arisen because the later document did not address the siltation listing in the lagoon, did not assess the technical information concerning that waterbody and is focused only on achieving compliance upstream of Mugu lagoon without providing a mechanism to assess the conditions downstream. The Mugu Lagoon Siltation TMDL is designed to compliment the OC OP pesticide TMDL by completing studies aimed at protecting the lagoon with an awareness of the allocations in the pesticide TMDL. Our specific response to the concerns are as follows: (1) The inconsistencies described are desirable features in that the Mugu lagoon Siltation TMDL includes studies about the Mugu lagoon habitat and that it includes siltation allocations should those problems be due to sedimentation. The OC and OP pesticide TMDL assumes control of in-stream concentrations without specific sediment allocations is sufficient to remedy all problems in the watershed. This is not a reasonable position without a timely and thorough study of the lagoon habitat. (2) Technical comments were received, as during the completion of the OC and OP pesticide TMDL, and corrections have been made. Any 'factual inaccuracies' which remain are not identified. (3)The studies quoted do represent work with various methodologies and over various periods of time. There are shared views of sedimentation in the watershed which is strength of staff's conclusions. Individual studies were compared, but their differing approaches were well documented and treated carefully such that final conclusions were based largely on the most recent and best documented studies. Other studies quoted were used to support those findings. Thus, the weight of evidence approach was used without directly

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			The Siltation Technical Report was not subject to review by a committee of experts from academic and/or government organizations, although both the Toxicity and OC Pesticides and PCBs Technical Reports were reviewed in such a manner. The Siltation Technical Report was not specifically reviewed by a State selected Peer Reviewer as required by California Health and Safety Code Section 57004, although both the Toxicity and OC Pesticides and PCBs Technical Reports were reviewed in such a manner.	comparing studies from different sources. In addition, all references were provided. (4)The basic approach of each study was included in the discussion. Details on model development are available in the reference. (5) Given that the document is a survey of available literature, the technical assumptions were limited. Further, the Science Advisory Panel is free to use superior technical assumptions during its assessment of the available data. (6) It is incorrect that the document was not reviewed. The CCWPP established a group of experts to review their documents, but this work was completed outside that venue and did not receive this particular review. However, it was reviewed by the relevant subcommittees, the steering committee, and available for comment for all stakeholders on the website for several months before its inclusion in the BPA. (7)This is factually incorrect. The document was sent for peer review as do all TMDL documents. Regional Board staff is working with State Board to determine the adequacy of the Peer Review. The assets of the Siltation Technical Report might be summarized as follows: (1) The report ensures the protection of habitat health in Mugu lagoon, this ultimate water quality/beneficial use objective in the Calleguas Creek watershed because it has been identified by the State of California as an Area of Special Biological Significance, it is a wetland on the Pacific Flyway, and an irreplaceable home to numerous endangered species. The protection of the resource and achievement of water quality goals should be the first objective in any set of TMDLs in the Callgueas Creek watershed, excepting perhaps issues of human health. (2) The report describes existing and well documented measures which suggest that benthic habitat is impaired, habitat quality may be changing, and while sedimentation rates vary widely, siltation may be

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				occurring in the lagoon. (3) The report acknowledges that more and recent information is needed to characterize the habitat and its relationship to sediment. (4) The OC/OP and Toxicity TMDL do not contain specific sediment reductions, sediment load allocations, nor a method to determine if sediment toxicity or chemical problems or sediment quantity is a problem in the lagoon. Another tool, such as the Mugu lagoon Siltation TMDL is required. The assertion by the commenter that the 1993-1997 State water Resource Control Board Bay Protection and Toxic Cleanup Program (BPRCP) was not a basis for the listing is factually incorrect. The basis for the 1998 listing is the 1996 Water Quality Assessment Data Summaries which specifically lists the California State Water Resource Board Bay Protection and Toxic Cleanup Program as a reference. Further, in the detailed description of Mugu Lagoon, that reference is quoted (a number 2) next to a description of poor survival rates in measures of sediment toxicity under water chemistry. Further, aquatic life is listed in this document as impaired due to excessive sediment. Finally, staff members involved in the listing process specifically describe the use of the data in this report which was collected over 5 years.

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			Specific concerns and recommendations: Basis for Sedimentation/Siltation Listing Remove the Bay Protection and Toxic Cleanup Program report as a reference for the basis of the sedimentation/siltation listing. Sediment Delivery Versus Sediment Deposition: Clarify the	As discussed above, previous work demonstrates the relationship between deposition and transport and by quoting from that work the Mugu Lagoon Siltation TMDL characterizes these relationships without quantifying the relationship. The site where siltation deposition volumes were estimated for the TMDL was the Mugu Lagoon. Estimates were based on the most recent study in the area by RMA for the Army Corp of Engineers completed in 2002. Other studies, such as the US Department of Agriculture study of 1995 study provide information on the relationship between sediment transport in other parts of the watershed and the amount deposited. The commenter asserts that the OC Pesticide BPA and the siltation Technical report do not agree because the Mugu Lagoon Siltation TMDL requires higher reductions. This is misleading because (1) the sediment reductions of the Mugu Lagoon Siltation TMDL are substantially smaller than the sediment reductions which may result from the pesticide TMDL if the concentration changes are accomplished through sediment reductions, however the commenter sometimes asserts there are no sediment reductions in that TMDL, so the any reduction would necessarily be larger and (2) the sediment

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			distinction between sediment delivery and sediment deposition and whether targets and allocations are based on sediment delivery or sediment deposition.	reductions of the Mugu lagoon Siltation TMDL are acknowledged by several commenters to be too small, so the comparison should be to necessary reduction to preserve habitat in Mugu lagoon.
			Numeric Targets are Inconsistent and Flawed: Remove numeric targets from the report. The siltation target in the Tentative OC Pesticide BPA does not match the target presented in the Siltation Technical Report. The Technical Report requires higher reductions. Regardless of the actual target, it is unclear if the sediment reduction target chosen is appropriate given the reduction is based on sediment deposition not sediment transport. The studies cited provide a range of two orders of magnitude with regard to sediment deposition in the lagoon. With regard to the habitat target, there is no discussion on the comparability or compatibility of the two studies cited and no clear reasoning given to choose either of the two studies as a basis for the	See discussion above. The sediment reductions called for in the Mugu Lagoon Siltation TMDL were compared in Table 7 to the sediment reductions specifically enumerated in the OC and OP Pesticide TMDL, even though the final allocations are described in terms of concentration. The document specifically states that sediment reductions may results in lowered pesticide concentrations. Table 7 continues to be of value because it compares the magnitude of the sediment mass change which would be necessary to retain the existing lagoon geometry against the sediment mass change which would be necessary to remove a sufficient concentration of pesticide. In fact, the comparison shows that remedies which may provide benefit to the lagoon may have little impact on implementation goals for the watershed.

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			target. Additionally, the habitat target is vague and may cause requirements to reduce sediment unrelated to anything but a change in habitat type over time with no consideration of habitat value. Reference to Sediment Reduction Requirements is Incorrect. Remove the reference to sediment reductions due to the OC Pesticides and PCBs Technical Report analysis in Table 7. Table 7 of the Siltation Technical Report claims the OC Pesticides and PCBs Technical Report calls for sediment reductions between 96 and 98 percent in the various subwatersheds. This is factually incorrect in that the OC Pesticides Technical Report analysis will require reductions in *concentrations* of pesticides on sediments not reductions in sediment loading. This table could lead to an interpretation that the OC Pesticides and PCBs TMDLs require almost complete sediment control. The discussion of sediment reduction associated with the OC Pesticides and PCBs TMDL in the Siltation Technical Report should be removed from this table. Both verbal and written comments have been submitted previously that this reference is incorrect and should be removed. Special Studies. Make the Special Study in Year 2-8 consistent with	Special Studies. The EPA Consent decree requires a TMDL solution be proposed for Rio De Santa Clara and Oxnard Drain #3 on the same time schedule as the toxicity and pesticide TMDLs. In the absence of other alternatives offered by the CCWMP, staff is required to provide a solution. In this case, the assumption is that the drains behave in a similar fashion to Calleguas Creek and that the only barrier to adopting similar allocations is concern about the immediate downstream beneficial uses in Mugu Lagoon. Specifically, if habitat problems are documented and are related to chemistry not sedimentation, then the existing allocation would apply. If siltation or loss of habitat is the problem, then chemical allocations may not be necessary. As stated above, the document has received peer review as required by

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			the Tentative OC Pesticides BPA and remove references to evaluation of the need for a TMDL in Analytical Unit #8. The continuation of the special studies in Year 2-8 has significantly different requirements than the Special Study #4 description included in the Tentative OC Pesticides BPA designed to address this requirement. The Technical Report special study requires a workplan to 'include sufficient detail, …, such that the Regional Board may use the findings to evaluate the need for a TMDL based on the listings in Analytical Unit #8 for pesticides in the vicinity of the Rio De Santa Clara and Oxnard Drain #3." Additionally, the study could be required to investigate surface water chemistry. The requirements to investigate pesticide listings and surface water chemistry seem inappropriate given this is the implementation plan for a Siltation TMDL to address impairments related to excess sediment in the lagoon. There is no reasoning given why the Siltation Technical Report implementation plan should be used as a vehicle to assess water chemistry or impairments related to pesticides. Lack of proper review. Development of the siltation targets and allocations was not subjected to the same review process as the targets and allocations for OC Pesticides and PCBs. The entire OC	State law and has been reviewed through the CCWMP stakeholder groups for three months.

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			Pesticides and PCBs Technical Report was thoroughly reviewed by a committee of experts from various academic and government organizations. The Siltation Technical Report was not subject to any such review. Additionally, the Siltation Technical Report did not undergo the same peer review process as the OC Pesticides and PCBs Technical Report, as is required by California Health & Safety Code Section 57004. This lack of proper review is an additional reason to support the suggested removal of targets and allocations for siltation.	
			Remove Agricultural Drains Technical Report as a Supporting Document We feel that the information included in the Agricultural Drains Technical Report is incorrect and in direct conflict with much of the information provided in the OC Pesticides and PCBs Technical Report. The listings for the agricultural drains covered by this technical report are or can be easily covered by small modifications to the OC Pesticides and PCBs and Toxicity Technical Reports. The drains have been incorporated into the allocations in the Tentative OC Pesticides and PCBs BPA in a manner that is consistent with the OC Pesticides and PCBs Technical Report. We therefore recommend that any additional changes be made to the OC Pesticides and PCBs Technical Report to address these drains and the Agricultural Drains	Staff agree that the Technical Report has been revised to adequately address the listing for the agricultural drains and adequate to support the allocations of this TMDL. Consequently, the Staff Technical Memorandum has been removed.

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			Technical Report be removed as supporting documentation for this TMDL. Additionally, the Agricultural Drains Technical Report was not subjected to the same peer review process as the OC Pesticides and PCBs Technical Report, as is required by California Health & Safety Code Section 57004.	
06	County Sanitation Districts of Los Angeles County	06/10/05	Initial and Overriding Concerns Regarding the Proposed Calleguas Creek OCPs TMDL In reviewing the proposed TMDL, it appears that many of the Clean Water Act 303(d) listings for which the TMDL was developed are not valid listings and do not represent actual impairments. It is the Districts' viewpoint that instead of adopting a TMDL for constituents and reaches for which there are no valid impairments, the invalid listings should be delisted and the TMDl should be written to focus on the actual impairments. Some of the concerns related to the listings in the Calleguas Creek Watershed include: The original sediment listings were based on the use of invalid guidelines for determining impairment that were developed for marine sediments.	Staff agrees that current information should be considered in TMDL development. Staff considered such information and identified constituents that currently do not appear to be exceeding targets. This TMDL did not allocate loads or wasteloads for constituents that appear not to be exceeding targets based on consideration of current data. The California Impaired Waters Guidance (2005) indicates that if a conclusion that standards are being attained and the water is not threatened, either because the assumptions underlying the listing were incorrect, or because the impairment has been corrected, delisting may be appropriate. The Technical Report did not substantiate incorrect listings or correction of impairments. Staff find that because current conditions may not match the conditions in the watershed at the time of listing does not mean the listings are invalid. Revision of the TMDL to remove targets should be based on delisting which is

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			The original fish tissue listings were based on limited data and utilized guidelines that State Water Resource Control Board (SWRCB) has stated should not be relied upon for determining impairment. These invalid impairments are unnecessary in light of recent data.	conducted by State Board and approved by US EPA. Regional Board staff recommend that the Districts provide its data and rationale for delisting to State Board.
			Additional technical Comments on the proposed Calleguas Cops TMDLs squirts sediment guidelines should be removed as sediment targets for this TMDL ERL and TELs are poor predictors of toxicity or community effect The reliance on ERLs is inconsistent with the SWRCB 303(d) listing Policy The use of ERLs and TELs to provide an implicit margin of safety is overly conservative. The use of ERLs and TELs as numeric targets is inconsistent with the SWRCB's current efforts to develop Sediment Quality Objectives The allocation method employed in the proposed Calleguas OCPs TMDL addresses sediment quality and avoids the need for theuse of the sediment targets. ` TheWLAs for POTWs should be established in a manner consistent with other WLAs/LAs. The allocations for the stormwater and	Regional Board staff find that the NOAA SQuiRT values represent the best available science regarding toxicity and sediment quality. Board staff also find that the TEL and ERL values are protective of aquatic habitat beneficial uses. The "disclaimer" does not invalidate Regional Board staff findings nor preclude its use to define numeric targets for TMDLs by the Regional Board.

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			agricultural dischargers are based on annual average instream sediment concentrations, while the Publicly Owned Treatment Works (POTWs) received end-of-pipe allocations based on the California Toxics Rule (CTR) water column criteria, which are concentration applied at much shorter averaging periods than one year. This inconsistency in approach leads to inequities and inefficiencies in TMDL implementation, in which POTWS are required to meet allocations based on short-term concentrations that are much more onerous than the longer-term limits given other sources in the watershed.	
07	Department of the Navy	06/10/05	The Navy does not believe it should be singled out as the only responsible party listed by name on Table 7-17.2. The Navy is already included as a MS4 permittee. The proposed annual average reduction is the import of silt of 5,200 tons/yr to Mugu Lagoon seem small from both the practical perspective and for the ability to measure it. The Navy suspended sediment gauge only measures the reduction of sediment entering the lagoon rather than what is depositing in the lagoon. We have also determined that total suspended solids correlates variably with flow:	Staff agrees and has revised the implementation plan to include the provisions of Special Study #2 into Special Study #1. Several stakeholders are responsible for Special Study #1. Staff agrees that additional technical information, such as that submitted, needs to be gathered to determine the scope and nature of sedimentation problems and the best method of quantifying proposed changes.

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			the higher the flow, the better the correlation (see enclosure (1)). Given the high variability of water and sediment flow in the Calleguas creek watershed, it would make more sense to make your numeric target a flow-weighted value at higher flow rates. For example the mass sediment/volume of water measured on a monthly basic could be used.	
			The Interim Waste Load Allocation (WLA) and Load Allocation (LA) for OC Pesticides and PCB's are too liberal as proposed. We proposed that the interim WLAs and LA decline incrementally towards the final WLAs and LAs during the 20-years implementation period.	The interim wasteload allocations have been revised in light of this comment. The TMDL will utilize data base from NPDES and TMDL monitoring and revise the interim wasteload allocations every 5-years in accordance with the 95th and 99th percentile procedures currently used.
			The development methodology for this TMDL does not follow EPA National TMDL Guidance	It is not clear which guidance to which the commenter refers. The comment letter from US EPA confirms that the US EPA requirements for TMDL requirements are achieved.
08	Department of Transportation	06/09/05	The draft staff report and the Basin Plan amendment acknowledge assigning load and waste load allocations based on watersheds. The Department owns approximately 85 miles of highway, two maintenance stations, and eight park and ride facilities within the watershed. The approximate area	Staff agrees that the Department of Transportation controls a small percentage of the watershed.

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			encompassed by these facilities represents less than one percent of the total watershed	
			We support efforts to improve water quality in Calleguas Creek, but are concerned with the waste load allocations assigned to the Department. Within our right-of-way, the Department has not used those pesticides listed in the TMDL documents. The Department performed a Statewide Monitoring Characterization Study (CTSW-RT-03-065) for which the listed pesticide were typically at non-dectable levels in storm water discharges. Given the small percentage of the watershed and the minimal amount of pesticides in the Department's runoff, we do no consider the Department to be contributor of OCPesticides and PCBs to the watershed to the watershed.	The allocations in this TMDL are concentration based. As such, they can apply to all dischargers.
			We support the 20 year schedule to allow stakeholders the opportunity to develop waste pesticide removal programs; pilot appropriate best management practices that target pesticides; and implement technically feasible BMPs.	Note taken

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